

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

2. (currently amended) An apparatus comprising:

a substrate;

a pair of signal traces formed directly on the substrate and spaced from each other;

a filler material directly on the substrate and between the signal traces, the filler material having a dielectric constant that is higher than a dielectric constant of a material of which the substrate is formed; and

a solder mask layer directly on the signal traces and directly on the filler material, the dielectric constant of the filler material being higher than a dielectric constant of the solder mask layer.

3. (previously presented) The apparatus of claim 2, wherein the substrate includes a resin in which fibers are embedded, the dielectric constant of the filler material being higher than a dielectric constant of the resin.

4. (previously presented) The apparatus of claim 2, wherein the signal traces are formed of copper.

5. (previously presented) The apparatus of claim 2, wherein the filler material substantially fills a space between the signal traces.

6. (previously presented) The apparatus of claim 2, wherein the filler material has a height that is substantially equal to a height of the signal traces.

7. (previously presented) The apparatus of claim 2, wherein the filler material has a dielectric constant in excess of 4.

8-28 (canceled)

29. (previously presented) The apparatus of claim 2, wherein the filler material includes polyvinylidene difluoride.

30. (new) The apparatus of claim 2, further comprising:
a metal ground plane on an opposite side of the substrate from the signal traces.

31. (new) An apparatus comprising:
a substrate;
a pair of signal traces formed on the substrate and spaced from each other;
a filler material on the substrate and between the signal traces, the filler material having a dielectric constant that is higher than a dielectric constant of a material of which the substrate is formed; and
a metal ground plane on an opposite side of the substrate from the signal traces.

32. (new) The apparatus of claim 31, wherein:
the signal traces are formed directly on the substrate;
the filler material is directly in contact with the substrate; and
the ground plane is directly in contact with the substrate.

33. (new) An apparatus comprising:
a first substrate;

a pair of signal traces formed on the first substrate and spaced from each other;

a filler material on the first substrate and between the signal traces, the filler material having a dielectric constant that is higher than a dielectric constant of a material of which the first substrate is formed;

a second substrate formed of the same material as the first substrate and on an opposite side of the signal traces from the first substrate; and

a metal ground plane on an opposite side of the second substrate from the signal traces.

34. (new) The apparatus of claim 33, wherein the metal ground plane is a first metal ground plane, and further comprising:

a second metal ground plane on an opposite side of the first substrate from the signal traces.

35. (new) The apparatus of claim 34, wherein:

the signal traces are directly formed on the first substrate;

the filler material is directly in contact with the first substrate;

the second substrate is directly in contact with the signal traces and with the filler material;

the first metal ground plane is directly in contact with the second substrate; and

the second metal ground plane is directly in contact with the first substrate.